## **ABSTRACT**

Flow identification value masks are identified based on, and used to mask a flow identification value associated with packets in a router, packet switching or computer system, any other device. These masks may be specified in access control lists or using any other mechanism, and typically are added to an associative memory or other mechanism keyed on their corresponding flow identification values for performing fast lookup operations. A lookup operation is performed based on the flow identification value associated with a particular packet to identify the correspond mask, which is then used to produce a masked flow identification value, and based on which, a value is updated in a data structure and/or other processing of the packet is performed.